

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A wireless network providing global paging of a mobile station serviced ~~mobile stations service~~ by the wireless network comprising:

a pool of mobile switching centers (MSC), for servicing the mobile stations within a specified service area of said wireless network;

a Home Location Register (HLR) for storing administrative information associated with the mobile station; and

a radio configuration database (RCDB) comprising for defining

a plurality of defined global paging areas within said specified service area, each of the global paging areas having a hierarchical structure and being dynamically ~~changed by maintaining a history of the movement of the mobile station and adjusting the associated location areas accordingly and the global paging areas having a hierarchical structure comprising;~~ adjustable to include additional location areas according to a history of the movement of the mobile station and

each of the plurality of global paging areas utilizing a separate base station controller/radio network controller (BSC/RNC) ~~each of which manage~~ for each global paging area, wherein a global paging area comprises

a predetermined set plurality of location areas in which ~~each location area in turn manages associated cells, and each~~ every MSC in the pool of MSCs can communicate and transmit paging requests to each BSC/RNC ~~with each of the BSC/RNCs~~ in each of the plurality of global paging areas.

2. (Currently Amended) The wireless network of claim 1 wherein said radio configuration database for defining a plurality of global paging areas further comprises

means for geographically grouping the location areas ~~cells~~ in each global paging area.

3. (Previously Presented) The wireless network of claim 1 further comprising means for paging a mobile station that is registered in a cell with the network.

4. (Currently Amended) The wireless network of claim 3, further comprising

means for instructing the MSC that handled the registration of the mobile station to attempt to page the registered mobile station in the location area containing the cell and if the mobile station does not respond, ~~the MSC then attempts a page~~ paging the mobile station in the global paging area to which the cell belongs, and if still no response, paging the mobile station in other RCDB defined global paging areas prior to paging the mobile station in the entire service area.

5. (Previously Presented) The wireless network of claim 1, wherein said radio configuration database further includes:

a first field for storing the cell identity of cells within said specified service area;

a second field for storing the identity of location areas within said specified service area

a third field for storing the identity of base station controllers or radio network controllers within said specified service area and

a fourth field for identifying the global paging area.

6. (Currently Amended) The wireless network of claim 5 wherein any mobile switching center in said pool can page the ~~is capable of paging a~~ mobile station within said specified service area by accessing said radio configuration database and determining the cell identity, the location area identity, the global paging area and base station controller/radio network controller identity of a mobile station roaming within said specified service area.

7. (Currently Amended) A method of paging a mobile station within a wireless network comprising a pool of mobile switching centers (MSC) for servicing mobile stations within a specified service area, the method comprising the steps of:

storing administrative information associated with the mobile station in a Home Location Register (HLR)

transmitting a paging request for a mobile station to the wireless network, wherein each MSC in the pool of MSCs can communicate and transmit paging requests with each Base Station Controller/Radio Network Controller (BSC/RNC) in the specified service area; the mobile switching center first

paging the mobile station in a first cell in which the mobile station is registered wherein the first cell is associated with a location area in a global paging area within the specified service area, wherein the global paging area is defined in a radio configuration database (RCDB) as a hierarchical structure comprising a base station controller/radio network controller controllers (BSC/RNC) that manage for managing a plurality of associated location areas;

~~that in turn manage cells associated with the location areas and said global paging area can be dynamically changed to by maintaining a history of the movement of the mobile station and adjusting the associated location areas accordingly; and~~

paging the mobile station attempting a page in the global paging area to which the cell belongs if no answer is received in response to the first page; and

dynamically adjusting the global paging area, by adjusting location areas, according to a history of the movement of the mobile station, prior to sending a page to the adjusted global paging area.

8. (Currently Amended) The method of claim 7 wherein the paging the mobile station in the global paging area ~~paging step~~ further comprises ~~the step of~~ paging the mobile station in the adjusted global paging area after accessing the radio configuration database to obtain the most recent location information for the mobile station.

9. (Currently Amended) The method of claim 7 ~~[[8]]~~ further comprising the steps of:

finding the cell in which the MS was most recently present;
determining the location area to which the cell belongs;
determining the global paging area to which said location area belongs;
paging the mobile station in the global paging area associated with said location area; and
paging the mobile station in another RCDB defined global paging area prior to
paging the mobile station in the entire service area ~~within said global paging area.~~

10. (Previously Presented) The method of claim 9 wherein said paging step is performed by paging the mobile station in all location areas within said global paging area.

11. (Currently Amended) The method of claim 7 wherein said global paging step further comprises the steps of:

accessing ~~[[a]]~~ the radio configuration database to determine ~~containing~~ the identity of all cells, location areas, base station controllers/radio network controllers, and global paging areas of the specified service area of said wireless network and the last known location of the mobile station; ~~and determining the cell, location area, base station controller/radio network controller, and global paging area in which said mobile station was last known to be roaming.~~

12. (Original) The method of claim 11 further comprising the step of transmitting a paging request in said last known global paging area.

13.-22. (Canceled)